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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,384	12/06/2001	Gary F. Feierbach	04860P2679	2221

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EXAMINER

TOLIN, GERALD P

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,384

Applicant(s)

FEIERBACH, GARY F.

Examiner

Gerald P Tolin

Art Unit

2835

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 36-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35, 42-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

1. Figures 1 and 2 should be labeled as "Prior Art".
2. On page 19 line 7, wick 302 is said to be in figure 9. Such is not the case. Is 902 intended?
3. On page 19 line 16 and in figure 9, IC's 810 and 811 are mentioned. It appears that 910 and 911 are the correct numbers.
4. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-35 and 42-46, drawn to a cooling device for electronics, classified in class 361, subclass 699.
 - II. Claims 36-41, drawn to a method of making the cooling device, classified in class 29, subclass 890.03.
5. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, steps such as positioning, extending, etc., are so broad as to be capable of producing a multitude of different articles. Also, the step order could be changed and the same article could result.
6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and divergent subject matter, restriction for examination purposes as indicated is proper.
7. During a telephone conversation with J. Scheller, Jr. on 11-25-02 a provisional election was made without traverse to prosecute the invention of group I, claims 1-35

and 42-46. Affirmation of this election must be made by applicant in replying to this Office action. Claims 36-41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-35, and 42-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "gas" or "fluid" is repetitive and confusing. Since fluid includes gas, the word "gas" appears to be un-necessary. Such language appears throughout many of the claims(15,19-24,29,33,etc) and those claims should also be corrected.

The claim 4 language fails to modify the article, only reciting method steps which could result in 4 different articles. Such language should be avoided.

In claim 8 there is a positive reference to the IC. However, parent claims 6 and 1 only refer to the IC in a functional manner. Such inconsistency confuses the intended and definite scope of the claims. Reference to the IC should be consistent for definite language.

Claims such as 12 and 25 create a vacuum and therefore appear to be inconsistent with parent claim 1 which recites a fluid presence. In a vacuum it appears that no fluid would be present. Comments are welcome.

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Claims 34 and 35 are indefinite in that they recite "said gas" and "said fluid", but claim 1 recited a gas "or" a fluid, not both (this may be clarified when the confusion of gas or fluid is corrected).

Claim 42 is misdescriptive in that positioning and extending means do not by themselves create a cooling device. Such is therefore incomplete and indefinite.

Claim 43 also uses the confusing gas or fluid language.

In the claim 45 vacuum, no fluid should be present, but parent claim 42 is inconsistent with this(having a gas or fluid).

10. Action based on prior art follows only insofar as the scope of the claims can be understood.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-8,10,11,15,16,18-23,42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto.

Figure 2 shows conduit 1, diverter 21, flexible/compressible bellows 5, thermal plate 3, grease 31, the pcb and component. All else is clearly shown. The bellows is "pleated" and partially extended/compressed.

13. Claims 1-8,10,11,15,16,18-22,42 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki.

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Figures 4 and 5 of this reference are relevant. The same interpretation of this reference exists as in the last paragraph with respect to Yamamoto, except no flow diverter is seen.

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 9,12-14,17,25-28,32-35,43,45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Suzuki or Yamamoto.

Materials, particular fluids and pressures and the use of heat pipes, while not shown, are notoriously known in the cooling art to alter cooling rates and effect boundary thermal transfer. For these reasons, adding these limitations to either primary reference would have been obvious.

16. Claims 24 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Suzuki or Yamamoto taken with Akamatsu.

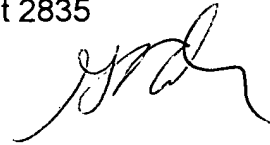
The primary references were discussed above. They lack a showing of the internal sink, fins, etc. The added reference provides such at figures 6 and 7. Such would have been obvious to employ with the primary art to add increased cooling to the electronic device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald P Tolin whose telephone number is 703-308-3114. The examiner can normally be reached on M-F first friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 703-308-0538. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Gerald P Tolin
Primary Examiner
Art Unit 2835



gpt
November 26, 2002